

it has been discovered, are larger **in the** foetus, a fact **which** naturally points to their being an inheritance **from** the past, **HOW** undergoing retrogressive changes. **Such a \way of looking** upon the facts is confirmed by the **finding, many years ago,** **by** **the** naturalist and physiologist Johannes Miller, of bony plates **in** **connexion with the remains** of a Zenglodont Cetacean. It **looks*** **therefore, very much,** as if the Eocene ancestors of the modern Getacea had a skin studded with bony plates^ as **have** **the** **arma-dillos.** This **being the case, the** disappearance of hair **is** not surprising. The **room,** would lie taken up by the calcified **plates,** **and when** the latter **disappeared,** as they have in the vast majority of existing Whales, the naked skin alone would "be left,

"Whales possess no **externally-visible** **hixi<i-lixnhs; **rudiments** **of these** appendages present, which will be dealt with tinder the description **of** the **principal** features of the skeleton. But it has been discovered **that in the 1'orpoise,** **external** **vestiges** **of hind-limbs** do ap|>ear in the foetus^ a fact **which,** **be** **It** **ob-** served,, does away **with** the old view that the flukes of the **"Whale** are the last term in the series of vanishing **hind-** **limbs*** **of** **which.** the Seals^ with their hind-limlte and **tail** bound up together,, offer an intermediate step.**

The tail is fish-like in form,, but the flukes are horizontal instead of vertical as in fishes and ***Jishthyooaur-us.*** This **arrange-** ment is no doubt associated with the need for rapid **return** to the surface waters after a prolonged immersion in search **of** food. A downward stroke, such as is given by the powerful **and** large tail flukes, would, naturally bring about this result **rapidly.** The tail, moreover, is under all **circumstances** the swimming organ. Its motion has been stated to be slightly rotatory, **like** that of a scnew^ and it is the case that the two flukes **are** often alternate in shape like the flanges of a screw; one being **convex** upwards, the other convex downwards*

The fore-limbs are in the form of paddles, but they **do** not apparently serve as organs of locomotion BO much as balancers.

"When a Whale is killed, it falls over on to one side, the **office** of the flippers being to maintain the proper

position. It is believed, however, from the fact that the embryo often shows a relatively larger pectoral fin than that of the adult—the difference being due to a **reduction in the adult of** the number of phalanges—that the fin was one© **an** axgan of